

Mandevilla torosa (Apocynaceae), treated as having two allopatric intergrading varieties in Mexico**Billie L. Turner**

Plant Resources Center The University of Texas Austin, TX 78712

billie.turner@austin.utexas.edu**ABSTRACT**

Mandevilla coulteri S. Wats. is treated as a variety within the widespread **M. torosa**, the former largely confined to north-central Mexico, but passing into var. **torosa** southwards.

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Mandevilla torosa (Jacq.) Woodson, the Type from Jamaica, with populations extending into southern Mexico, is treated as composed of two intergrading varieties, a more southern typical var. **torosa** and a more northern var. **coulteri**, the latter largely confined to Coahuila, Nuevo Leon and Tamaulipas but grading into var. **torosa** southwards; this dichotomy was first proposed by Williams (1999) in his doctoral thesis but not published. Unfortunately he applied the varietal name “karwinskii” to the more northern elements, the latter typified by a Karwinski collection from southern Mexico (probably Oaxaca). He should have adopted the varietal name “coulteri,” for the northern populations, which is typified by a Coulter collection from the state of Coahuila.

I have more or less adopted the key to the two varieties provided by Williams, but with the addition of leaf shapes:

Mandevilla torosa (Jacq.) Woodson, Ann. Missouri Bot. Gard. 19: 64 1932.

Key to varieties

1. Corolla tubes mostly 4-6 mm long; leaves mostly obovate, or rounded at their apices; plants typically vine-like.....var. **torosa**
1. Corolla tubes mostly 7-9 mm long; leaves mostly elliptic with acute apices; plants perennial herbs or subshrubs.....var. **coulteri**

var. **coulteri** (S. Wats) B.L. Turner, **var. nov.**

Based upon *Echites coulteri* S. Wats., Proc. Amer. Acad. Arts 18: 113. 1883.

The name is typified by *Coulter 957*, this collected in the state of Coahuila, S. of Saltillo, according to Williams (1999). There are some 60 specimens of the variety at LL- TEX, all remarkably alike and possessing the characters attributed to var. **coulteri** by the present author. Williams applied the name var. *karwinskii* to all of these sheets, largely because he had not examined the type concerned; Alvarado-Cadenas and Morales (2014) correctly note its synonymy under their concept of **Mandevilla torosa**; they also placed var. **coulteri** in synonymy under **M. torosa**, which belies the taxonomy proposed herein.

Distribution of the two taxa in Mexico, along with intermediates, is show in Fig. 1. Williams mapped, but did not annotate or name the intermediate sheets. Those sheets which I have accepted as intermediates (and mapped accordingly) follow:

TAMAULIPAS (two collections): Hidalgo, *Hinton et al.* 24709; 11 mi W of Victoria. *Graham & Johnston* 4133.

SAN LUIS POTOSI: *Barkley et al.* 854; *Irving* 167 [both collections near Cd. de Maiz].

QUERETARO: (7 sheets, all intermediate) *Carranza* 930; *Carranza & Silva* 5873a; *Fernandez & Rzedowski* 3425; *Rubio* 1866, 1250; *Servin* 1042; *Zamudio & Carranza* 6651.

Alvarado-Cadenas and Morales (2014) noted two collections of **M. torosa** from Veracruz that I have not examined. I have mapped these as var. **torosa**, but these too might be intermediates. Indeed, with DNA analysis it is possible that typical **Mandevilla torosa** (in Mexico) will be found confined to the Yucatan Peninsula and that intermediates between these and var. **coulteri** are deserving of formal recognition.

It should be noted that Morales (1998) stated “*Mandevilla karwinskii* is closely related to *M. torosa* but can be recognized by its very narrowly elliptic (or almost linear) to spatulate leaf blades and mucroulate to rarely acute leaf apices, its usually sub-erect habit, and the usually continuous to obscurely moniliform follicles.” He did not clearly delineate the two taxon, either morphologically or geographically, as perceived by Williams, or the present author.

LITERATURE CITED

- Alvarado-Cardenas, L.O. and Morales, J.F. 2014. El genero *Mandevilla* (Apocynaceae: Apocynoideae, Mesechiteae) en Mexico. *Botanical Sciences* 92: 59-79.
- Morales, J.F. 1998. A synopsis of the genus *Mandevilla* (Apocynaceae) in Mexico and Central America. *Brittonia* 50: 214-232.
- Williams, J.K. 1999. A phylogenetic and taxonomic study of the Apocynaceae, subfamily Apocynoideae of Mexico, with a synopsis of subfamily Plumerioideae. Doctoral Diss., Univ. of Texas, Austin, 546 pp.

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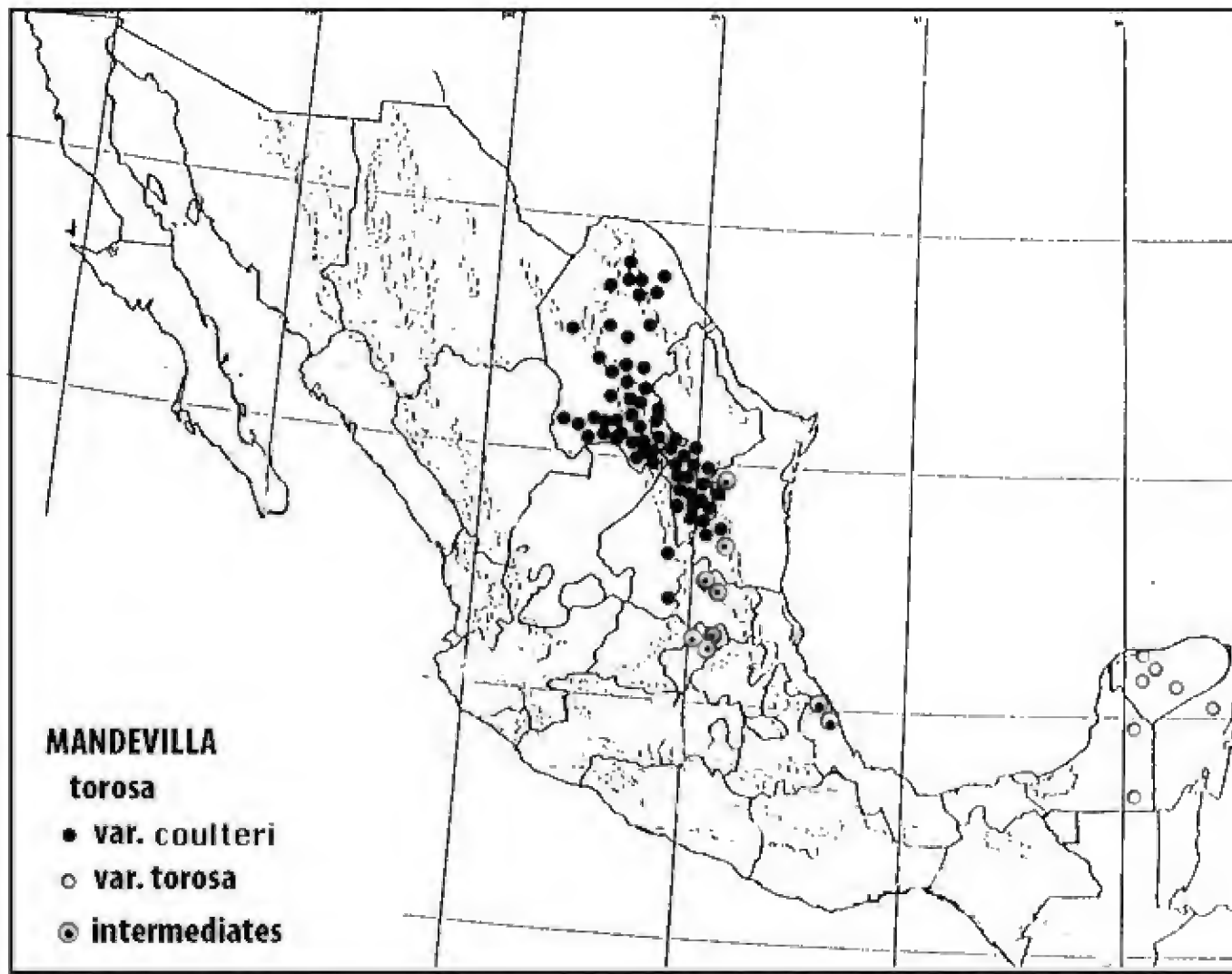


Fig. 1. Distribution of *Mandevilla torosa* in Mexico